BUSINESS MATHEMATICS I

1	Course Title:	BUSINESS MATHEMATICS I
2	Course Code:	ISL1401
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. GÜL EMEL
15	Course Lecturers:	Doç. Dr. Gül EMEL Yar.Doç.Dr.Burcu AVCI ÖZTÜRK
16	Contact information of the Course Coordinator:	ggokay@uludag.edu.tr Tel: 0224 29 41055
17	Website:	
18	Objective of the Course:	To provide students with basic knowledge of Business Mathematics, to develop their ability to apply the knowledge to special business cases and to evaluate the solutions of the problems carefully.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	To be able to know basic mathematical rules.
	2	To be able to comprehend the importance of the math for the business.
	3	To be able to state the business related problems with equations.
	4	To be able to express the concepts like revenue, cost and profit mathematically.
	5	To be able to calculate simple and compound interests
	6	To be able to analyze the details of the mathematical model of the problem with limit and derivative rules
	7	To be able to synthesise the outcome data
	8	To be able to interpret the solutions and evaluate the mathematical models
	9	
	10	
21	Course Content:	

Course Content:

Week	Theoretical	Practice
1	Linear equations, linear functions and their graphs	
2	Linear ınequalities and their graphs	

3	Cost, revenue and profit functions and breakeven point computation	
4	Polynomial nonlinear functions	
5	Logarithmic and exponential functions	
6	Business applications of nonlinear functions	
7	Sequences and series (Midterm Exam)	
8	Interest calculations and applications	
9	Limits and contingency	
10	Description of the derivatives, rate of change, rules of derivatives.	
11	Derivatives of implicit functions, logaritmic functions and functions of which exponent is a function, high order derivatives.	
12	Derivatives, continuity, differential, indefinite forms and L'hospital rule.	
13	Increasing and decreasing functions, extreme and turning points and drawing curves.	
14	Max. profit, min cost calcultions and business examples	

22	Textbooks, References and/or Other Materials:	* Mustafa Aytaç, Mustafa Sevüktekin, Erkan Işığıçok, Sosyal Bilimlerde Matematik, Ezgi Kitabevi, Bursa, 2010. * Mustafa Sevüktekin, Zehra Başkaya, Matematiksel Analiz: İşletme ve Ekonomi Uygulamaları, Dora Yayıncılık, Bursa, 2010.

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	4.00	56.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Quiz	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	25.00	25.00
Final Exam	1	60.00	25.00
Others	0	0.00	0.00
Final Exams	1	30.00	30.00
Contribution of Term (Year) Learning Activities to	40.00		
Total Work Load			178.00
Contribution of Final Exam to Success Grade	60.00		5.10
ECTS Credit of the Course			5.00

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Quiz	0	0.00
Midterm exams	1	60.00
Final Exams	1	40.00
Total work load of 30 hr		

Measurement and Evaluation Techniques Used in the Course	
24	**ECTS / WORK LOAD TABLE**

25	**CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS**															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	3	5	2	3	0	4	5	2	5	4	1	0	0	0	0	0
ÖK2	3	5	2	3	0	4	5	2	5	4	1	0	0	0	0	0
ÖK3	3	5	2	3	0	4	5	1	5	4	1	0	0	0	0	0

ÖK4	3	5	2	2	0	4	5	2	5	3	1	0	0	0	0	0
ÖK5	2	4	2	3	0	5	5	1	5	2	1	0	0	0	0	0
ÖK6	1	5	2	1	0	2	3	2	5	3	1	0	0	0	0	0
ÖK7	3	4	2	2	0	4	3	3	5	4	1	0	0	0	0	0
ÖK8	3	5	3	2	0	3	4	3	5	4	1	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**